IN THE CLAIMS

Please add the following new claims:

76. A method for actuating or installing downhole equipment in a wellbore, comprising the steps of:

(a) providing, a first downhole structure that comprises an RF identification transmitter unit that stores an identification code and transmits an RF signal corresponding to the identification code;

(b) providing a second downhole structure that comprises an RF receiver unit that can receive the signal transmitted by the identification transmitter unit, decode the signal to determine the identification code corresponding thereto, and compare the identification code to a preset target identification code; wherein one of the first downhole structure and the second downhole structure is secured at a given location in a subterranean wellbore, and the other is moveable in the wellbore;

(c) placing the second downhole structure in close enough proximity to the first downhole structure so that the RF receiver unit can receive the RF signal transmitted by the RF identification unit;

(d) comparing the identification code determined by the RF receiver unit to the target identification code, and

(e) if the determined identification code matches the target identification code, actuating or installing one of the first downhole structure or second downhole structure in physical proximity to the other.

77. The method of claim **76**, wherein the first downhole structure comprises a tubular member having a hollow axial bore therethrough and the RF identification transmitter unit secured thereto.

78. The method of claim **77**, wherein the identification transmitter unit is imbedded in the tubular member.

79. The method of claim **76**, wherein the first downhole structure is selected from the group consisting of landing nipples, gas lift mandrels, packers, casing, external casing packers, slotted liners, multi-laterals, slips,

sleeves, and guns.

80. The method of claim **76**, wherein a plurality of first downhole structures are secured at different depths in a subterranean wellbore.

81. The method of claim **76**, wherein at least one first downhole structure is secured in a given location in a lateral borehole of a multilateral well and the second downhole structure is placed in proximity to the first downhole structure within the same lateral.

82. The method of claim **76**, wherein the second downhole structure is selected from the group consisting of subsurface safety valves, gas lift valves, packers, perforating guns, expandable tubing, expandable screens, and flow control devices.

83. The method of claim **76**, wherein a plurality of first downhole structures are located at different depths in a wellbore, each of the first downhole structures comprises a tubular member having a hollow axial bore therethrough and the RF identification transmitter unit secured thereto, and the determined identification code is used to determine the depth of the second downhole structure in the borehole

84. The method of claim **83**, wherein the plurality of tubular members are joints of completion tubing that are attached end to end.

85. The method of claim **84**, wherein each identification transmitter is secured near one end of the respective joint of completion tubing.

86. The method of claim **83**, wherein second downhole structure is a perforating gun, and the determined depth is used to determine when to fire the gun.

87. The method of claim **76**, wherein the second downhole structure is a downhole tool that is attached to a supporting structure selected from the group consisting of wireline, slickline, coiled tubing, and drillpipe, and the second downhole structure is moved to different depths within the borehole by raising or lowering the supporting structure.

88. The method of claim **76**, wherein the RF identification transmitter unit comprises a radio frequency transponder.

89. The method of claim **76**, wherein the second downhole structure is a downhole tool that is actuated in response to a match between the

determined identification code and the target identification code, and wherein the actuation comprises locking the second downhole structure in a fixed position relative to the first downhole structure.

90. The method of claim **89**, wherein the first downhole structure comprises a tubular member having an axial bore therethrough and an inner surface, and further comprising a locking indentation in the inner surface, and wherein the second downhole structure engages the locking indentation when it is actuated.

91. The method of claim **90**, wherein the identification code indicates at least the inner diameter of the tubular member, and the target identification code is predetermined to match the identification code of the tubular member in which the downhole becomes locked upon actuated.

92. The method of claim **91**, wherein the downhole tool adjusts in size to fit the inner diameter of the tubular member.

93. A downhole assembly comprising:

a first downhole structure that comprises an RF identification transmitter unit that stores an identification code and transmits a signal corresponding to the identification code; and

a second downhole structure that comprises an RF receiver unit that can receive the signal transmitted by the identification transmitter unit, decode the signal to determine the identification code corresponding thereto, and compare the identification code to a preset target identification code; wherein one of the first downhole structure and the second downhole structure is secured at a given location in a subterranean wellbore, and the other is movable in the wellbore; and

wherein the assembly comprises apparatus for determining if the determined identification code matches the target identification code, and for actuating or installing one of the first downhole structure or second downhole structure in physical proximity to the other.

94. The assembly of claim **93**, wherein the first downhole structure comprises a tubular member having a hollow axial bore therethrough and the RF identification transmitter unit secured thereto.

95. The assembly of claim **94**, wherein the identification transmitter unit is imbedded in the tubular member.

96. A downhole assembly, comprising:

a first downhole structure that comprises an RF identification transmitter unit that stores an identification code and transmits a signal corresponding to the identification code; and

a second downhole structure that comprises an RF receiver unit that can receive the signal transmitted by the identification transmitter unit, decode the signal to determine the identification code corresponding thereto, and compare the identification code to a preset target identification code; wherein one of the first downhole structure and the second downhole structure is secured at a given location in a subterranean wellbore, and the other is movable in the wellbore;

wherein the first downhole structure is selected from the group consisting of landing nipples, gas lift mandrels, packers, casing, external casing packers, slotted liners, multi-laterals, slips, sleeves, and guns.

97. The assembly of claim **93**, comprising a plurality of first downhole structures secured at different depths in a subterranean wellbore.

98. The assembly of claim **93**, wherein the second downhole structure is a downhole tool that is attached to a supporting structure selected from the group consisting of wireline, slickline, coiled tubing, and drillpipe, and the second downhole structure can be moved to different depths within the borehole by raising or lowering the supporting structure.

99. The assembly of claim **93**, wherein the RF identification transmitter unit comprises a radio frequency transponder.

100. A downhole assembly, comprising:

a first downhole structure that comprises an RF identification transmitter unit that stores an identification code and transmits a signal corresponding, to the identification code; and

a second downhole structure that comprises an RF receiver unit that can receive the signal transmitted by the identification transmitter unit, decode the signal to determine the identification code corresponding thereto, and compare the identification code to a preset target identification code; wherein one of the

first downhole structure and the second downhole structure is secured at a given location in a subterranean wellbore, and the other is movable in the wellbore;

wherein the second downhole structure is a downhole tool that is actuated in response to a match between the determined identification code and the target identification code, and wherein the actuation comprises

locking the second downhole structure in a fixed position relative to the first downhole structure.

101. The assembly of claim **100**, wherein the first downhole structure comprises a tubular member having an axial bore therethrough and an inner surface, and further comprising a locking indentation in the inner surface, and wherein the second downhole structure engages the locking indentation when it is actuated.

102. The assembly of claim **101**, wherein the identification code indicates at least the inner diameter of the tubular member, and the target identification code is predetermined to match the identification code of the tubular member in which the downhole becomes locked upon activation.

103. The assembly of claim **102**, wherein the downhole tool is capable of adjusting in size to fit the inner diameter of the tubular member.

104. A method of inventorying a plurality of downhole structures in a subterranean well, comprising the steps of:

(a) providing in a wellbore a plurality of first downhole structures having RF identification transmitter units therein;

(b) passing at least one second downhole structure through at least a part of the wellbore in proximity to a plurality of the RF identification transmitter units, wherein the second downhole structure comprises a RF receiver unit that receives the signal transmitted by the identification transmitter units, decodes the signals to determine the identification codes corresponding thereto, and stores the identification codes in memory

(c) using the identification codes read from the database to perform at least one operation selected from the group consisting of actuating, activating, and deactivating with at least one downhole structure in the well.